### AST Inspection

First Annual New Hampshire Gasoline & Heating Oil Conference

Michael W. Juranty, P.E.



# Purpose of the AST Program

Env-Wm 1402: To minimize contamination of the waters and land of the state due to the improper storage and handling of petroleum at AST facilities.

### Regulated AST Facility if:

Single AST > 660-gallons, or

ASTs total > 1,320-gallons.

 On-premise use heating oil AST exemption if not > 10,000-gallons

### **Inspection Priority**

Recent oil release

New construction

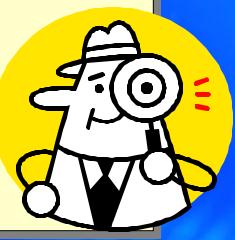
194 facilities never inspected



### **AST Inspection Process**

- File Review
- Set up an appointment
- Site visit
- Written follow-up





#### Inspection Items

- Registration
- Overfill protection and markings
- Requirements for new tanks & piping
- Interstitial monitoring & release detection
- Stormwater management
- Housekeeping
- SPCC Plan
- Monthly inspections/monitoring

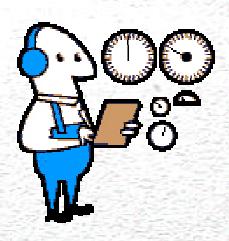
#### Register Your Tanks

- Register all AST systems at the facility
- Report a change in use
- Notify DES of a change in ownership

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	TYPE	OF NOTIFICATION			TATE USE ONLY	
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New and Tele of Owner or owner's authorized representative (prior)			Signite		Date Signed	



- Accurate gauge required for all tanks
- Visible to the person filling the tank
- Pop-up gauges ok for tanks <660gallons



### High Level Alarms

- Independent of tank gauge
- Audible and visible to person filling tank
- AST <12,000-gal: activate at 90%
- AST >12,000-gal: activate at 3% < max safe fill height
- Vent whistle ok for tanks
   <660-gallons</li>



### **Tank Markings**

- Tank number as shown on registration form
- Product stored
- Safe fill height or volume at w Kerosene
- Diesel
- Fuel Oil hich high level alarm is activated
- NFPA fire rating symbol

TANK NO. 1
GASOLINE
MAX FILL HEIGHT
3' 3"

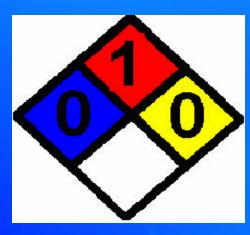
### NFPA 704 Symbol



**Gasoline Aviation Gas** 

Kerosene Diesel Fuel Oil





Motor Oil Asphalt

### New Tank Requirements > April 25, 1997

- Plan approval if > 660-gallons
- Manufacturing and fire standards
- Secondary Containment
- Interstitial monitoring/release detection

### Construction Approval for New Tanks

- Construction approval required for all new AST systems > 660-gallons
- Submit application and engineer stamped plans 45-days prior to anticipated construction date
- DES will inspect new installations prior to initial filling

### New Tank & Piping Standards

- UL 142 for shopfabricated tanks
- API 650 for field erected tanks
- NFPA 30
- NFPA 30A
  - 50-ft dispenser setback, OR
  - Vaulted, Fire
     Protected, or Fire
     Resistant



Dispenser<br/>Not Allowed

Dispenser Allowed

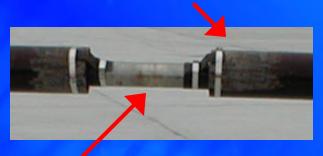


### New Tank & Piping Secondary Containment

- 100% of AST capacity plus stormwater
- If double-walled AST, automatic fill shut-off
- Pipes underground
- Pipes over water



Containment



**Primary Pipe** 

### New Tank Monitoring & Detection

Interstitial monitoring required



 Release detection



# Stormwater Management

- Contaminated water shall be pumped out and removed from site by licensed contractor
- May discharge CLEAN stormwater in containment to ground surface
- Keep secondary containment clean



### Housekeeping

- Cleanliness
- Fill boxes
- Drip buckets







# Spill Prevention, Control, And Countermeasure (SPCC) Plan

- If operational prior to August 16, 2002, should have existing SPCC plan
- Existing plans must be revised by August 17, 2004, and implemented by February 18, 2005
- Newly operational after August 16, 2002, plan written and implemented by February 18, 2005

# Monthly Facility Inspections By Owner

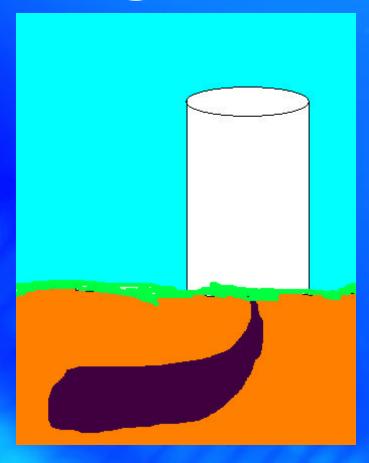
- Ensure all equipment functions properly and no unusual conditions exist
- Record results in writing
- Maintain records for 3-years



# Monthly Inventory Monitoring

 Applicable if distribute oil or motor fuel, or if tank system is in contact with ground

 Notify DES of an unexplained loss



#### Deficiencies

- Written letter detailing deficiencies
- 45-days to comply, or
- Enforcement action may include administrative fines of not more than \$2,000 per violation and/or administrative orders





 Participate in petroleum industry training classes

### Go Above and Beyond

- Canopies over loading racks and tanks
- Automatic fill shutoff for tankers
- Portland cement concrete vs. soil containment



#### Questions?

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